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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/010,811	01/06/2010	5,900,195	W004 Reexam - 5900195	1747

35979 7590 10/16/2013

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ART UNIT	**PAPER NUMBER**
3991	
MAIL DATE	**DELIVERY MODE**
10/16/2013	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SUBSEA SERVICES INTERNATIONAL, INC.
Patent Owner and Appellant

Appeal 2013-009534
Reexamination Control 90/010,811
Patent 5,900,195[1]
Technology Center 3900

Before JEFFREY B. ROBERTSON, DANIEL S. SONG and MICHAEL L. HOELTER, *Administrative Patent Judges*.

HOELTER, *Administrative Patent Judge.*

DECISION ON APPEAL

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[1] US 5,900,195 issued May 4, 1999 and is the parent of divisional application number 09/517,383 filed Mar. 26, 1998 which issued as US 6,402,201 B1 on Jun. 11, 2002. The '201 patent was the subject of reexamination control number 90/010,812 and appeal number 2013-002802. A Decision by the Board in that appeal was mailed May 8, 2013.

STATEMENT OF THE CASE

Subsea Services International, Inc. (hereinafter "Appellant"), the real party in interest of US Patent Number 5,900,195 (hereinafter the "'195 patent"), appeals under 35 U.S.C. §§ 134(b) and 306 from the Examiner's decision to reject claims 1, 2, 4-21 and 24-26. App. Br. 2. Claims 3, 22 and 23 have been cancelled. App. Br. 2-3. We have jurisdiction under 35 U.S.C. §§ 6(b), 134(b) and 306. We AFFIRM.

THE CLAIMED SUBJECT MATTER

The '195 patent "relates to pipeline joint protection" and more specifically to an apparatus "for protecting exposed pipe joints on weight coated pipelines used in offshore applications." '195 patent 1:7-10. Independent claim 1 (and its subsequently entered amendments, App. Br. 2-3) is reproduced below and is illustrative of the claims on appeal:

> 1. A method for protecting exposed joint connection portions of weight coated pipeline being laid from a lay barge beneath a body of water, comprising the steps of:
>
> installing a pliable cover sheet of synthetic resin cover material around the exposed joint connection on the lay barge such that the cover material forms a protective barrier which overlaps the weight coating of the pipeline on either side of the exposed joint connection and remains part of the pipeline;
>
> forming an opening into the cover material sized to receive a mixing head;
>
> sealing overlapping side edges of the installed cover material together along a longitudinal length of the cover material on the lay barge along side portions of the installed cover material to form a sealed annular void between the pipe and the cover material;
>
> injecting fluid joint filler system components on the lay barge through the opening into the sealed annular void;

allowing the fluid joint filler system components to solidify and fill the void; and

allowing the fluid joint filler system components to absorb moisture and increase ballast of the pipeline.

EVIDENCE RELIED ON BY THE EXAMINER

Baker	US 4,909,669	Mar. 20, 1990
Wyke	US 5,804,093	Sep. 8, 1998
Barrett	GB 1,429,173	Mar. 24, 1976
Meyer	WO 82/003438	Oct. 14, 1982

DRESSEL, D. (FOAM ENTERPRISES INC. USA), Internal and External Protection of Pipes-Proceedings of the 8th International Conference, pages 259-267, BHRA 1990

THE REJECTIONS ON APPEAL

In the "Grounds of Rejection" portion of the Examiner's Answer, the Examiner maintains every ground of rejection set forth in the Final Rejection dated July 26, 2012. Ans. 3. We reference this Final Rejection and the grounds stated therein as "Final Rej."

1. Claims 1, 2, 4-7, 9-14, 16-21 and 24-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Barrett, Baker and Dressel. Final Rej. 3.

2. Claims 8 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Barrett, Baker, Dressel and Meyer. Final Rej. 7.

3. Claims 1, 2, 4-7, 9 and 24-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker and Barrett. Final Rej. 7.

4. Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker, Barrett and Meyer. Final Rej. 10.

5. Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker, Barrett and Dressel. Final Rej. 10.

6. Claims 11-14 and 16-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker, Barrett and Dressel. Final Rej. 11.

7. Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker, Barrett, Dressel and Meyer. Final Rej. 12.

8. Claims 1-7, 9, 11-14 and 16-24[2] are rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker and Wyke. Final Rej. 12.

9. Claims 8 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Baker, Wyke and Meyer. Final Rej. 14.

ANALYSIS

Rejections 1 and 2 above reject all of the claims on appeal (i.e., claims 1, 2, 4-21 and 24-26) wherein Barrett is the primary reference and Baker is the secondary reference (in addition to additional reliance on Dressel and Meyer). Rejections 3-7 above also reject all the claims on appeal, but wherein Baker is the primary reference and Barrett is the secondary reference (in addition to the further reliance on Dressel and Meyer). Rejections 8 and 9 above are not inclusive of all the claims on appeal as there is no specific rejection of claim 10. We elect to initially address rejections 3-7 above wherein Baker is the primary reference and Barrett is the secondary reference (in addition to further reliance on Dressel and Meyer).

[2] Appellant notes and we agree that claims 22 and 23 have been cancelled. App. Br. 34.

The rejection of claims 1, 2, 4-7, 9 and 24-26 as being unpatentable over Baker and Barrett

Appellant argues claims 1, 2, 4-7, 9 and 24-26 as a group. App. Br. 25-27. We select claim 1 for review with claims 2, 4-7, 9 and 24-26 standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2011).

The Examiner primarily relies on the teachings of Baker for disclosing the limitations of claim 1, including injecting fluid to "fill the void (col. 4, lines 20-23)." Final Rej. 7-8. However, the Examiner relies on Barrett "to provide the hatch or opening of Barrett in the sealed cover **30** of Baker" so as to allow injection of the filler material "*while preventing loss* of the filler material." Final Rej. 9, *see also* Barrett 2:39-41; 4:60-63. The Examiner concludes that it would have been obvious "to completely fill the annular void of Baker in the manner disclosed by Barrett, as doing so protects the upper surface of the pipeline joints from damage that might be caused by trawl fishing." Final Rej. 9 *referencing* Barrett 1:27-30. Such damage to the pipeline attributed to trawl fishing is also identified by Appellant. Spec. 2:20-23.

Appellant references a previous discussion of both Baker and Barrett found on pages 15-21 of Appellant's Appeal Brief (App. Br. 25) and as such, we also consider those contentions pertinent to this rejection with Baker being the primary reference. The Examiner also relies on statements previously made with respect to Baker and Barrett. Ans. 9.

Appellant contends that "Baker describes a sheet 30 that is partially wrapped around a pipe joint 14, leaving a slit or other gap." App. Br. 25. Regarding partial wrapping, the Examiner reproduced Baker's Figure 3A which illustrates sheet 30 wrapped fully around the pipe and sealed via weld

42. Final Rej. 8. The Examiner also specifically identified Baker 4:20-23 which describes the injection of foam material "into the annular space formed by the plastic sheet around the pipe P." Baker continues to describe how sheet 30 is wrapped and longitudinally welded (42) to itself while being held in place by straps or bands 45 at its opposite ends. Baker 4:23-37, *see also* Fig. 3. Indeed, we note the similarity between Baker's weld and bands and Appellant's item 42 (Fig. 3) and discussion of cinch belts used to form a sealed sleeve. '195 patent 4:11-14. Further, Baker's teaching that the filler material is "injected into the annular space formed by the plastic sheet" is indicative of a complete annular wrapping (as contrasted with a partial wrapping) into which the filler is injected. Baker 4:21-24. Accordingly, Appellant's contention regarding Baker's partial wrapping is not persuasive.

Regarding Appellant's contention concerning Baker leaving a slit or gap in order to inject the filler material, the Examiner acknowledges that "Baker is silent with respect to forming an opening into the sealed cover material" and relies on Barrett for this teaching. Final Rej. 8-9. This is not to say that Baker doesn't employ an opening, only that Baker is silent in this regard. Claim 1 specifies the opening be "sized to receive a mixing head" and Appellant does not contend that Barrett's opening (or Baker's asserted slit or gap for that matter) is not "sized to receive a mixing head." Hence, injection of filler material into the annular space of Baker by providing an opening as taught in Barrett would have been obvious to one of ordinary skill, especially in view of Baker's silence as to the manner in which the filler material can be injected therein. Appellant's speculation as to the existence of a slit or gap in Baker is not responsive to the Examiner's

rejection which relies on Barrett for explicitly teaching an opening in the cover material.

Appellant also contends that Baker's fill material is injected "into an *open* annular space *beneath*" the pipe and "*before* the edges of the sheet 30 are joined together." App. Br. 25, *see also* Reply Br. 19-21. The matters of "*open* annular space" and injection "*before* the edges" are joined are discussed above and not found persuasive.

Regarding Appellant's contention of Baker only filling "*beneath*" the pipe, Appellant contends that the Examiner "improperly broadens the scope of the Baker disclosure to imply" filling "an area completely surrounding the pipe P." Reply Br. 22. Even though Appellant acknowledges that Baker's material "possibly could expand into the upper portion of the annular space," Appellant asserts that "one of ordinary skill in the art would have clearly understood that the foam material of Baker would not have *completely* filled the annular space." Reply Br. 22 (emphasis added). We note that claim 1 specifies that the filler "fill the [annular] void" and does not recite that it is completely filled as argued. Nevertheless, Baker clearly discloses injection into the annular space "around the pipe" and also that the fill material need not be limited to only a "C" shape, but may also take "some other configuration to substantially fill the area." Baker 4:21-24, 2:9-11, *see also* Final Rej. 9. Also, Appellant's own Background section acknowledges that it is known to fill the space between the pipe and the sheet. Spec. 1:45-47 ("[t]he space between the pipe and sheet metal was then filled.").

Despite these express teachings regarding fill, the Examiner still considered that "it is unclear if Baker injects the foam into the *entire* annular void." Final Rej. 9 (emphasis added). To address this, the Examiner

references Barrett concluding that it would have been obvious "to completely fill the annular void of Baker in the manner disclosed by Barrett." Final Rej. 9. The Examiner references Barrett 1:27-30 directed to protecting the upper part of the pipeline from damage that may be caused by trawl fishing and the Examiner further references Barrett 2:34-41 which discusses an enclosure which "ensures that the cavity can be filled with a setable filler material." Final Rej. 9. In view of the above, we are not persuaded by Appellant's contention that Baker is limited to only teaching filling "*beneath*" the pipe in view of Appellant's acknowledgement above. Additionally, Appellant does not dispute the Examiner's further reliance on Barrett's teaching of complete filling. Accordingly, Appellant's contention is not persuasive.

Appellant also attempts to distinguish Barrett by addressing Barrett's "two rigid half-pipe sections" that are "*not sealed*," but the Examiner did not rely on Barrett for these teachings in this rejection. App. Br. 25, 26, *see also* Reply Br. 18-19; Final Rej. 9. However, consistent with the Examiner's reliance on Barrett, Appellant acknowledges that Barrett discloses "a hatch 33" that is provided for "pouring a resin binder into the annulus around the joint connection."[3] App. Br. 25-26. In other words, Appellant's contentions directed to Barrett are misplaced as they do not address the Examiner's rejection before us or the Examiner's reliance on Barrett in such rejection. Final Rej. 7-9. Appellant's contentions are not persuasive.

Appellant further argues that if Barrett's hatch were incorporated into Baker's sheet, the result "would be an *open* annular space because of the

[3] Note also Appellant's acknowledgement of pouring binder into the annulus *around* the joint in view of Appellant's 'complete fill' distinction *supra*.

presence of the hatch 33." App. Br. 27. Appellant fails to explain how this resultant *open* assembly is different from Appellant's assembly which has the limitation of "forming an opening" so that filler can be injected "through the opening into the sealed annular void." In other words, Appellant does not explain how Baker/Barrett's *open* assembly is any different from Appellant's claimed assembly with an opening therein. Appellant's contention is not persuasive.

In also discussing Baker and Barrett, Appellant contends that "Barrett uses a '*seal, then fill*' methodology" in contrast to Baker's "'*fill, then seal*' methodology" and that the two "are completely different in design and operation." App. Br. 15, *see also* Reply Br. 17. However, contrary to Appellant's assertion and as indicated *supra*, Baker also discloses a 'seal, then fill' methodology by teaching injection of foam material into an already existing annular space formed by the sheet that is sealed around the pipe via longitudinal weld 42 and bands 45. Baker 4:21-37, Figs. 3 and 3A.

Appellant additionally contends that Barrett fails to disclose hatches that "are cut in a manner (*i.e.*, cut to a particular size) to retain rapidly curing chemical components (*e.g.*, an open-celled foaming material) within the annular space." Reply Br. 16. We disagree. The Examiner references Barrett's teaching that "[t]he settable filler material can be introduced into the annular space between the cover and the pipe by any means suitable for the transfer of the filler material chosen." Final Rej. 5-6 *citing* Barrett 3:74-79. Hence, Barrett indicates that the hatch to be employed in Baker can be cut or sized so that transfer can occur based on the filler material chosen. Appellant's contention is not persuasive.

Appellant further contends that in accordance with their invention, the polyurethane foam should completely fill the annular space "and protrude to some extent upward through the hole 38." App. Br. 40, Reply Br. 18. However, and seemingly contradictory to this assertion, Appellant also contends that their invention "does not allow the rapidly curing polyurethane foam 52 to escape from the sealed material sleeve 40" and further that their device is sealed "while retaining these components within the cover material 30." App. Br. 40, Reply Br. 18. Appellant does not elaborate or further explain how the foam of their invention can both extend upward through the hole and also how, at the same time, it is not allowed to escape from the sleeve and is instead retained therein. Appellant provides no objective evidence to support this allegation and it is not otherwise self-evident from the record. *See In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974) ("Attorney's arguments in a brief cannot take the place of evidence."). Accordingly, Appellant's contention is not persuasive.

In view of the record presented, we sustain the Examiner's rejection of claims 1, 2, 4-7, 9 and 24-26 as being unpatentable over Baker and Barrett.

The rejection of dependent claim 8
as being unpatentable over Baker, Barrett and Meyer

The Examiner references a previous discussion regarding the combination of Meyer with the teachings of Barrett and Baker (Final Rej. 10) and we reference this earlier discussion. The Examiner relies on Meyer for teaching the additional limitation of the cover material being "between about 0.02 inches to about 0.5 inches in thickness." Final Rej. 7 *referencing*

Meyer pg. 3. The Examiner concludes that it would have been obvious "to fabricate the polyethylene sheet of the combination to have a thickness within the range of Meyer" so as to be "'capable of withstanding severe mechanical stresses caused by impact, shock, tension and compression' while also being 'highly durable.'" Final Rej. 7 *referencing* Meyer pg. 3. Appellant disagrees with the Examiner's rejection contending that "Meyer fails to cure the deficiencies of Baker and Barrett" in that Meyer fails to disclose or suggest the limitation directed to "sealing overlapping side edges" as well as the limitation directed to "injecting fluid joint filler system components." App. Br. 28, 29, *see also* Reply Br. 25-26. The Examiner states that "Meyer was relied upon *only* for teaching a known thickness of polyethylene sheeting used in exposed joint infill systems." Ans. 9. We agree that the Examiner did not rely on Meyer for the "sealing" and "injecting" limitations asserted by Appellant. Final Rej. 7, 10. Further, Appellant does not dispute that Meyer discloses the thickness range recited in claim 8. Accordingly, Appellant's contentions are not persuasive and as such, we sustain the Examiner's rejection of claim 8 as being unpatentable over Baker, Barrett and Meyer.

The rejection of claim 10
as being unpatentable over Baker, Barrett and Dressel

The Examiner references a previous discussion regarding the combination of Dressel with the teachings of Barrett and Baker (Final Rej. 10) and we reference this earlier discussion. The Examiner relies on Dressel for teaching the additional limitation directed to a "rapid curing polyurethane system which reacts to form a high density open celled foam

material in the sealed annular void." Final Rej. 5, 10-11. The Examiner concludes that Dressel's "use of foamed polyurethane decreases the cost of joint infill." Final Rej. 10-11.

Appellant disagrees with this rejection contending that even assuming arguendo that Baker and Barrett can be combined, "Dressel fails to cure the deficiencies of Baker and Barrett." App. Br. 29, 30, *see also* Reply Br. 23. Appellant acknowledges that "Dressel can be used to fill the annular space" but Appellant contends that Dressel fails to disclose the limitations directed to "sealing overlapping side edges" and injecting filler "*through the opening into the sealed annular void*." App. Br. 30, Reply Br. 23. Dressel was not relied on for teaching these limitations. Final Rej. 5, 10-11. As such, Appellant's contentions are not persuasive.

We also note that an earlier contention by Appellant involving Dressel was directed to Dressel's foam material not being suitable for Barrett's system which purportedly pertained to "a slow curing, setable filter [sic, filler] material." App. Br. 15, *see also* Reply Br. 15-16. However, in the rejection before us, Baker's system is relied upon, not Barrett's. Final Rej. 7-9, *see also* 10-11. Further, Baker and Dressel are similar in that both disclose the use of a foam material to protect the pipe joint with the Examiner finding that Dressel's use of "foamed polyurethane decreases the cost of joint infill." Baker 1:65-66, 4:21, Dressel pg. 264, Final Rej. 10-11, *see also* App. Br. 20, 21. Appellant does not dispute this finding. App. Br. 29-30, *see also* App. Br. 21-22. Accordingly, we sustain the Examiner's rejection of claim 10 as being unpatentable over Baker, Barrett and Dressel.

The rejection of claims 11-14 and 16-21 as being unpatentable over Baker, Barrett and Dressel

Appellant contends that even "assuming *arguendo* that Baker could be combined with Barrett and Dressel, such a combination fails to disclose or suggest" the "sealing" limitation and the "injecting" limitation recited in their respective parent claim. App. Br. 31. Appellant does not indicate how Baker's sheet that is secured and sealed around the pipe and illustrated in Figs. 3 and 3A differs from Appellant's sheet also secured around the pipe as illustrated in Fig. 3. Appellant also does not provide persuasive argument that the Examiner erred in concluding that it would have been obvious to insert an opening, such as that disclosed in Barrett, in Baker's sheet. Final Rej. 8-9. Accordingly, Appellant's arguments are not persuasive and we sustain the Examiner's rejection of claims 11-14 and 16-21 as being unpatentable over Baker, Barrett and Dressel.

The rejection of claim 15 as being unpatentable over Baker, Barrett, Dressel and Meyer

The Examiner relies on the above stated rationale regarding the combination of Baker, Barrett and Dressel and also on the additional reference to Meyer "as set forth above." Final Rej. 12. Appellant disagrees "[a]s discussed above" contending that "Meyer fails to cure the deficiencies of Baker, Barrett and Dressel" in that Meyer fails to disclose or suggest the limitation directed to "sealing overlapping side edges" as well as the limitation directed to "injecting." App. Br. 33, *see also* Reply Br. 25-26. The Examiner did not rely on Meyer for these limitations but instead for disclosing the thickness of a cover sheet. Final Rej. 12. Appellant does not

dispute that Meyer discloses the thickness range recited in claim 15. Accordingly, Appellant's contentions are not persuasive and as such, we sustain the Examiner's rejection of claim 15 as being unpatentable over Baker, Barrett, Dressel and Meyer.

Rejections based on Baker/Wyke and Rejections based on Barrett/Baker

We also note similarities between the Examiner's secondary reliance on Barrett as discussed *supra* (i.e., rejections 3-7 listed above) and the Examiner's secondary reliance on Wyke (i.e., rejections 8 and 9 listed above). In both sets of rejections, the Examiner relied on the secondary references to disclose an opening that can be employed in Baker and also to expressly indicate that the fill can be complete. *See* Final Rej. 9 (Barrett) and Final Rej. 13 (Wyke). However, because we sustained rejections addressing all the claims on appeal, we do not reach the Examiner's additional rejections employing Wyke as the secondary reference, nor do we reach the Examiner's additional rejections employing Barrett as the primary reference (i.e., rejections 1 and 2 listed above).

DECISION

The Examiner's rejections of claims 1, 2, 4-21 and 24-26 as being obvious over different combinations of Baker, Barrett, Dressel, and Meyer as noted above are affirmed.

No time period for taking action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2010).

AFFIRMED

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